

CHEM-E4120 Quantitative Instrumental Analysis

Examination 18.12.2019

As remembered after exams, most of the questions are old anyways.

Choose 6 questions to be answered upon your own choice, answer either in English or Finnish.

1. Monochromators and polychromators in optical spectrometry?
2. Light sources in spectrofotometry and photoluminence?
3. *ESCA and XPS. Difference of methods. How does ESCA work and how are measurements carried out.*
4. X-ray fluorescence with X-ray excitation?
5. Auger Electron Emission Spectrometry compared with Electron Probe Microanalysis?
6. Atomic absorption and optical emission spectrometry?
7. Capillary electrophoresis, the separation principles and detection and quantification of analytes?
8. High-performance liquid chromatography (HPLC)